REMARKS

The Office Action dated November 24, 2007 has been received and carefully noted. The above amendments to the claims, and the following remarks, are submitted as a full and complete response thereto.

Claims 1-8, 11, and 16-18 have been amended to more particularly point out and distinctly claim the subject matter of the invention. New claims 19-20 have been added. No new matter has been added and no new issues are raised which require further consideration or search. Therefore, claims 1-20 are currently pending in the application and are respectfully submitted for consideration.

The Office Action rejected claims 1-18 under 35 U.S.C. § 102(e) as being anticipated by U.S. Publication No. 2004/0215957 ("Moineau"). The rejection is respectfully traversed for at least the following reasons.

Claim 1, upon which claims 2-7 are dependent, recites an apparatus, which includes a router configured to route subscriber traffic flow between at least two wireless access networks and an internet protocol network. The at least two wireless access networks correspond to different customer networks. The apparatus further includes a generator configured to generate at least one instance for executing a security function on a subscriber traffic flow, so that physically one security instance for subscribers of at least two wireless access networks is present and logically at least one of the at least two wireless access networks has a respective security instance.

Application No.: 10/646,900

Claim 8, upon which claim 9-15 are dependent, recites a method, which includes providing at least one instance to execute a security function on subscriber traffic flow routed between at least two wireless access networks and an IP network, where the at least two wireless access networks correspond to different customer networks, by logically separating the at least one instance for at least two wireless access networks, so that physically one security instance for subscribers of the at least two wireless access networks is present and logically at least one of the at least two wireless access networks has a respective security instance.

Claim 16 recites a network node which includes a connection which connects a network node to a distributed routing device configured to route subscriber traffic flow to and from an internet protocol network. The distributed routing device is configured to route subscriber traffic flow between at least two wireless access networks and an internet protocol network. The at least two wireless access networks correspond to different customer networks. The distributed routing device comprises at least one instance for executing a security function on a subscriber traffic flow, so that physically one security instance for subscribers of at least two wireless access networks is present and logically at least one of the at least two wireless access networks has a respective security instance. The at least one logical part of the security instance is associated with a context of a respective one of the wireless access networks and comprises an interface with the respective wireless access network. The network node further includes a modifying device configured to modify the context in the at least one logical part of the

Application No.: 10/646,900

security instance associated with the respective one of the wireless access network via a respectively provided interface.

Claim 17 recites a network system, which includes at least two wireless access networks and a distributed routing device configured to route subscriber traffic flow between the at least two wireless access networks and an internet protocol network. The at least two wireless access networks correspond to different customer networks. The distributed routing device is configured to route subscriber traffic flow between at least two wireless access networks and an internet protocol network. The distributed routing device includes at least one instance for executing a security function on a subscriber traffic flow, so that physically one security instance for subscribers of at least two wireless access networks is present and logically at least one of the at least two wireless access networks has a respective security instance.

Claim 18 recites an apparatus, which includes routing means for routing subscriber traffic flow between at least two wireless access networks and an internet protocol network. The at least two wireless access networks correspond to different customer networks. The apparatus further includes generating means for generating at least one instance for executing a security function on a subscriber traffic flow, so that physically one security instance for subscribers of at least two wireless access networks is present and logically at least one of the at least two wireless access networks has a respective security instance.

Application No.: 10/646,900

Claim 19 recites a network node, which includes connection means for connecting a network node to distributed routing means for routing subscriber traffic flow to and from an internet protocol network. The distributed routing means routes subscriber traffic flow between at least two wireless access networks and an internet protocol network. The at least two wireless access networks correspond to different customer networks. The distributed routing device comprises at least one instance for executing a security function on a subscriber traffic flow, so that physically one security instance for subscribers of at least two wireless access networks is present and logically at least one of the at least two wireless access networks has a respective security instance. At least one logical part of the security instance is associated with a context of a respective one of the wireless access networks and comprises an interface with the respective wireless access network. The network node further includes modifying means for modifying the context in the at least one logical part of the security instance associated with the respective one of the wireless access network via a respectively provided interface.

Claim 20 recites a network system, which includes at least two wireless access networks and distributed routing means for routing subscriber traffic flow between the at least two wireless access networks and an internet protocol network. The distributed routing means routes subscriber traffic flow between at least two wireless access networks and an internet protocol network. The at least two wireless access networks correspond to different customer networks. The distributed routing means comprises at least one instance for executing a security function on a subscriber traffic flow, so that

Application No.: 10/646,900

physically one security instance for subscribers of at least two wireless access networks is present and logically at least one of the at least two wireless access networks has a respective security instance.

Therefore, according to embodiments of the invention, latency is reduced, the handover mechanism is improved, and transferring entire contexts across autonomous systems are avoided. An architecture is provided for virtual firewalls and virtual security gateways, a framework and mechanism for firewall and security context transfer, and a policy governance model to accommodate rules and manage the mobile node preferences based on a roaming agreement. According to embodiments of the invention, the functions of firewall, security gateway and home agent are moved to the provider that provides instances of such functions for each customer. This facilitates the process of conducting context transfer and also eliminates a protocol between these instances for IPSec and firewall context transfer. Private peering and public peering are enabled to support context transfer at the provider edge which enables policy control and is more secure.

As will be discussed below, Moineau fails to disclose or suggest all of the elements of the claims, and therefore fails to provide the advantages and features discussed above.

Moineau generally discloses an apparatus which allows a secure connection of a user client station to a base unit. The secure connection comprises the use of authentication and encryption means. Moineau further discloses that the base unit

Application No.: 10/646,900

comprises a switching unit, at least one firewall, an authentication/encryption unit, and at least one port device. Moineau further discloses a secure roaming scheme when a roaming is performed by a wireless user. (See Moineau at Abstract.)

Moineau further discloses a base unit 26 which comprises a firewall system 10, a router 12, a VPN server 14, a WLAN port 20 and a LAN 18. Figure 1 shows two mobile units 22 and 24 connected to a base unit 26, via a WLAN port 20. Alternatively, mobile unit 22 can be connected to a first base unit 26, and mobile unit 24 can be connected to a second base unit 26 (not shown in Figure 1). The LAN internal port 18 allows the connection of a base unit 26 to at least one other base unit 26 (not shown in Figure 1) and more generally to a LAN. Furthermore, a mobile unit user can roam from one base unit 26 to another base unit (not shown in Figure 1). Moineau further discloses that each base unit 26 is located on a same subnet in order to facilitate roaming, or a base unit 26 and a radius authentication server is separated by a WAN. (See Moineau at paragraphs 0030-0038; see also Figure 1).

Furthermore, Moineau discloses that a mobile unit can communicate with another mobile unit 24 via the WLAN port 20, the firewall system 10, and the router 12. Moineau further discloses that a mobile unit 22 can communicate with a computer located in an outer LAN or WAN. Alternatively, mobile unit 22 can communicate with another user 24 connected to a WLAN access point of another base unit 26 connected to the base unit 26 where the mobile unit 22 is, via the LAN internal port 18. Thus, Moineau discloses two forms of communication between mobile unit 22 and 24: (1)

- 13 -   Application No.: 10/646,900

communication when mobile units 22 and 24 are both connected to a first base station 26; and (2) when mobile unit 22 is connected to a first base station 26 and mobile unit 24 is connected to a second base station 26. (See Moineau at paragraphs 0030- 0044; see also Figure 1).

Applicants respectfully submit that Moineau fails to disclose, teach, or suggest, all of the elements of the present claims. For example, Moineau fails to disclose, teach, or suggest, at least, "a router configured to route subscriber traffic flow between at least two wireless access networks and an internet protocol network, wherein the at least two wireless access networks correspond to different customer networks," as recited in claim 1, and similarly recited in claims 8, and 16-20.

The Office Action stated in the "Response" section that Applicants' arguments from the Response, filed on August 20, 2007 ("Previous Response"), are not persuasive because "the features upon which applicant relies (i.e., routing subscriber traffic between wireless access networks and an IP network, wherein the wireless access networks correspond to different customer networks) are not recited in the rejected claims(s)." Applicants respectfully submit that claims 1, 8, and 16-18 have been amended to recite (and new claims 19 and 20 do recite) "wherein the wireless access networks correspond to different customer networks." Therefore, the arguments from the Previous Response are incorporated herein.

Furthermore, Moineau fails to disclose or suggest two wireless access networks, let alone two wireless access networks which correspond to different customer networks.

Application No.: 10/646,900

As described above, Moineau discloses two WLAN clients 22 and 24, and discloses that the WLAN clients are either connected to the same base unit, or connected to two different base units. However, Moineau discloses that the two base stations are part of the same subnet, and thus, part of the same wireless access network. (see Moineau at 0038 and 0049). Moineau fails to disclose or suggest that the two base units are each a base unit of a different wireless access network, and fails to disclose or suggest that the WLAN clients are each a client of a different wireless access network. Furthermore, Moineau fails to disclose or suggest that each base unit (and thus, each WLAN client) is associated with a different customer network, as Moineau fails to disclose or suggest the nature of the network, beyond the fact that the network is a wireless access network. Therefore, Moineau fails to disclose or suggest different customer networks, as claimed in the present invention.

Thus, Moineau fails to disclose, teach, or suggest, at least, "a router configured to route subscriber traffic flow between at least two wireless access networks and an internet protocol network, wherein the at least two wireless access networks correspond to different customer networks," as recited in claim 1, and similarly recited in claims 8, and 16-20.

Therefore, for at least the reasons discussed above, Moineau fails to disclose, teach, or suggest, all of the elements of claims 1, 8, and 16-20. For the reasons stated above, Applicants respectfully request that this rejection be withdrawn.

Application No.: 10/646,900

Claims 2-7 depend upon claim 1. Claims 9-15 depend upon claim 8. Thus, Applicants respectfully submit that claims 2-7 and 9-15 should be allowed for at least their dependence upon claims 1, and 8, and for the specific limitations recited therein.

For at least the reasons discussed above, Applicants respectfully submit that the cited prior art references fails to disclose or suggest all of the elements of the claimed invention. These distinctions are more than sufficient to render the claimed invention unanticipated and unobvious. It is therefore respectfully requested that all of claims 1-20 be allowed, and this application passed to issue.

If for any reason the Examiner determines that the application is not now in condition for allowance, it is respectfully requested that the Examiner contact, by telephone, the applicant's undersigned attorney at the indicated telephone number to arrange for an interview to expedite the disposition of this application.

In the event this paper is not being timely filed, the applicant respectfully petitions for an appropriate extension of time. Any fees for such an extension together with any additional fees may be charged to Counsel's Deposit Account 50-2222.

Respectfully submitted,

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Enclosures: Additional Claim Fee Transmittal
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Application No.: 10/646,900